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INFORMATION DISCLOSURE STATEMENT

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Page 1 of 6 ATTY. DOCKET NO. APPLICATION NO. 09/525,185 1744.0450002 **INVENTORS**

SIXTH SUPPLEMENTAL Sorrells et al. **ART UNIT** FILING DATE March 14, 2000 2634 **U.S. PATENT DOCUMENTS** DATE CLASS SUB-CLASS FILING DATE DOCUMENT NUMBER NAME REF. AΑ AB60 4,789,837 12/1988 Ridgers 05/1997 Yamaji et al. AC60 5,634,207 06/1997 Sevenhans et al. AD60 5,642,071 04/2001 AE60 6,211,718 B1 Souetinov 04/2001 Avasarala 6,212,369 B1 AF60 10/2001 Souetinov et al. 6,308,058 B1 AG60 6,633,194 B2 AH60 10/2003 Amborg et al. 2001/0036818 A1 11/2001 Dobrovolny A160 **FOREIGN PATENT DOCUMENTS** DOC. CLASS SUB-CLASS TRANSLATION DATE COUNTRY **DOCUMENT NUMBER** REF. Yes AJ Νo Yes ΑK No Yes AL No No AM23 DE 692 21 098 T2 01/1998 DE OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.) DOC. CITATION REF.

EXAMINER INITIAL AN AO AP Hellwarth, G.A. and Jones, G.D, "Automatic Conditioning of Speech Signals," *IEEE Transactions on Audio and Electroacoustics*, Vol. AU-16, No. 2, pp. 169-179 (June 1968). AQ59 English Abstract for German Patent No. DE 692 21 098 T2, 1 page, data supplied from the espacenet. AR59 DATE CONSIDERED **EXAMINER** tis 000m

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		F	FORM PTO-1449			TTY. DOCKET NO. '44.0450002		LICATION NO 25,185	
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())	AA61	6,873,836 B1	03/2005		Sorrells et al.		+	
		AB61	6,879,817 B1	04/2005		Sorrells et al.			
		AC61	6,057,714	05/2000		Andrys et al.			
		AD61	2003/0081781 A1	05/2003		Jensen <i>et al</i> .			
		AE61	5,994,689	11/1999		Charrier			
		AF61	6,512,544 B1	01/2003		Merrill <i>et al</i> .			
		AG61	6,628,328 B1	09/2003		Yokouchi <i>et al</i> .			
, V		AH61	6,801,253 B1	10/2004		Yonemoto <i>et al</i> .			
W		Al61	3,737,778	06/1973					
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	F	FORM PTO-1449		174	Y. DOCKET NO. 4.0450002			ICATION NO 5,185	
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<u></u>	AA62	4,286,283	08/1981		lemens				
	AB62	4,241,451	12/1980		aixner <i>et al</i> .				
	AC62	5,014,130	05/1991		eister et al.				
	AD62	5,390,215	02/1995	Anita et al.					
	AE62	5,805,460	09/1998	G	reene <i>et al.</i>				
	AF62	6,882,194 B2	04/2005	В	elot <i>et al.</i>				
	AG62	6,892,062 B2	05/2005	Le	ee et al.				
V	AH62	6,917,796 B2	07/2005	Se	etty et al.				
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	AA63	5,062,122	10/1991		ham <i>et al</i> .				
	AB63	6,182,011 B1	01/2001	- W	/ard				
	AC63	6,639,939 B1	10/2003	N	aden <i>et al.</i> 				
	AD63	4,441,080	04/1984	S	aari				,
	AE63	4,873,492	10/1989	М	lyer				
	AF63	5,697,074	12/1997	М	akikallio et al.	-			
	AG63	5,784,689	07/1998	K	obayashi	_			
V	AH63	6,335,656 B1	01/2002	G	oldfarb <i>et al</i> .	-			
W	A163	6,690,232 B2	02/2004	U	eno <i>et al.</i>				
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	$\mathcal{L}_{\mathcal{Q}}$	AA64	5,636,140	06/1997	L	ee <i>et al.</i>				
	Υ	AB64	6,366,622 B1	04/2002	В	rown et al.	-			
	,	AC64	6,600,795 B1	07/2003	0	hta et al.	-			
		AD64	4,250,458	02/1981	R	ichmond <i>et al</i> .				
	<u> </u>	AE64	5,760,629	06/1998	٠ U	rabe et al.				
		AF64	6,084,465	07/2000	D	asgupta	-			
		AG64	6,204,789 B1	03/2001	N	agata				
	1	AH64	6,064,054	05/2000	w	/aczynski <i>et al.</i>				
\mathcal{O}	<u> </u>	A164	5,218,562	06/1993		asehore et al.				·
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			U.S. PAT	ENT DOCUMENTS			
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Co	AA65	5,239,496	08/1993	Vancraeynest			
	AB65	5,896,304	04/1999	Tiemann et al.			
	AC65	6,005,903	12/1999	Mendelovicz			
N/S	AD65	5,834,979	11/1998	Yatsuka			
CD	AE65	6,798,351 B1	09/2004	Sorrells et al.			
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APPLICANTS Sorrells et al.	
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	AC50	3,246,	084	04/19	966	Kryte	er		MOV O C	2002			
TENT & THE	AD50	3,702,	440	11/19	972	Moor	re		NOV 2 6	2003			
·	AE50	3,767,	984	10/19	973	Shine	oda et al.	T oo	notony C	enter 2600			
	AF50	3,852,	530	12/19	974	Shen		100	miology o	511(01 2000			
	AG50	4,220,	977	09/19	980	Yam	anaka						
	AH50	5,016,	242	05/19	991	Tang							
	AI50	5,937,		08/19	999	Lam et al.							
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(0	AL19	EP 0 2	254 844 A2		02/1988	:	EP ·			N/A			
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		·	OTHE	R (Inc	ludina Auti	nor. Ti	tle, Date, Pertinent Pages,	etc.)		<u> </u>			
	AN												
Co	AO		Translation of application).	Japa	nese Patent	Public	ation No. 60-130203, 3 page	s (July 11, 198	35- Date of pu	ublication of			
Co	ΑP	<u>56</u>	Razavi, B., "A Digest of Tec	. 900-l hnical	MHz/1.8-Gh: Papers, IEE	z CMO EE, pp.	S Transmitter for Dual-Band 128-131 (1998).	Applications,*	Symposium	on VLSI Circuits			
œ	AQ 56 Ritter, G.M., "SDA, A New Solution for Transceivers," 16th European Microwave Conference, Microwave Exhibitions and Publishers, pp. 729-733 (September 8, 1986).												
ω	AR _c	DIALOG File 351 (Derwent WPI) English Language Patent Abstract for FR 2 669 787, 1 page (May 29, 1992-Date of publication of application).											
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APPLICANTS Sorrells et al.	
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86	AA51	6,014	4,551	01/20	000	Pesc	ola et al.	-		RECE		
3 W E	AB51	6,073	3,001	06/20)00	Soko	ler				JAET	
2	AC51	6,08	5,073	07/20	000	Pale	rmo et al.			NOV 2	6-2003	
	AD51	6,400	0,963 B 1	06/20	02	Glöc	kler et al.			NOV 2	2003	
T & TAR	AE51	6.230	0,000 B1	05/20	01	Tayloe			- 10	hnology	Center 2600	
	AF51	5,483	3,695	01/19	96	Pard	Tayloe Technology C					
	AG51	Ť	2,722 B1	04/20	003	Som	ells et al.					
	AH51	6,560	0,301 B1	05/20	03	Cool	et al.	-	~			
	Al51	1 6,098,046 08/2000		Coor	per et al.				-			
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Co	φ				07/1985		JP	<			Ye (Doc. AO5	
	AK20 DE 196 27 640 A1				01/1997		DE				N	
	AL20 EP 0 087 336 A1 08/19						EP	-			N	
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	AO	<u>57</u>	Patel, M. et a Jitter," VTC 2	/., "Bai 1002, II	ndpass Sam EEE, pp. 190	pling ()1-190	or Software Radio Recei 5 (2002).	vers, and the	ne Effec	t of Oversam	pling on Apertu	
	AP .	<u>57</u>					se Patent Publication No. dication of application).	61-030821	, from t	nttp://www1.ip	edl.jpo.go.jp, 1	
	AQ 57 English-language Abstract of Japanese Patent Publication No. 05-327356, 1 from http://www1.ipdl.jpo.go.jp, Page (December 10, 1993 - Date of publication of application).											
V	AR	<u>57</u>	Tayloe, D., "/ Business Ma	\ Low- gazine	noise, High- _l s & Media, l	perfor	mance Zero IF Quadratu 5. 58, 60, 62 and 69 (Mai	re Detector rch 2003).	/Pream	plifier," <i>RF D</i> e	esign, Primedia	
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40	13	AD52		0,902 B1	06/20	003	Sorr	relis et al.		_	NOV 2	6 2003	
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		AH52	_	7,313 B1	12/20		Traylor et al. Tsugai						
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Ç	0	AJ21	EP 0	789 449 A2 &	А3	08/1997		EP	<			N/A	
		AK21	FR 2	669 787 A1		05/1992		FR				No	
		AL21	GB 2	2 324 919 A		11/1998		GB	_			N/A	
0	ソ	AM21	JP 6	1-30821		02/1986		JP	/			No	
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C	0	AN	<u>58</u>					ronic Receiver Based on a Ch m Electronics, IEEE, Vol. 2, N					
		AO	<u>58</u>					or Machine Vision," 20th Inten 5. 879-883 (September 1994)		Confer	ence on Indu	strial Electronics,	
		AP Stewart, R.W. and Pfann, E., "Oversampling and sigma-delta strategies for data conversion," <i>Electronics & Communication Engineering Journal</i> , IEEE, pp. 37-47 (February 1998).											
		AQ	Rudell, J.C. et al., "A 1.9-Ghz Wide-Band IF Double Conversion CMOS Receiver for Cordless Telephone Applications," <i>IEEE Journal of Solid-State Circuits</i> , IEEE, Vol. 32, No. 12, pp. 2071-2088 (December 1997).										
1		AR	<u>58</u>					se Patent Publication No. 09- blication of application).	036664,	from h	ttp://www1.ip	dl.jpo.go.jp, 2	
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6 .	00	AA53	5,793,817	08/19	998	Wilso	on	-	=	SEC	HVFF)
	100 E	AB53	6,225,848 B1	05/20	001	Tilley	et al.			<u> </u>	-IV[. IJ
17	96	AC53	6,313,685 B1	11/20	001	Rabii				NOV 2	6 2003
MIL	RADE	AD53	3,614,627	10/19	971	Runy	an et al.				
Aza	a NOE	AE53	3,940,697	02/19	976	Morg	an		—Te	chnology	Center 2600
ENI &		AF53	4,016,366	04/19	977	Kura	ta			3	
	<u> </u>	AG53	4,045,740	08/19	977	Bake	<u>r</u>				
	1	AH53	4,115,737	09/19	978	Hong	u et al.				
	4	A153	5,710,992	01/19	98	Sawa	nda et al.				
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EXAMIN INITIAL			DOCUMENT NUM	BER	DATE		COUNTRY	CLA	SS	SUB- CLASS	TRANSLATION
C	Ø.	AJ22	JP 5-327356		12/1993		JP)	No
		AK22	EP 0 643 477 A2 &	.A3	03/1995		EP	-			N/A
		AL22	EP 0 877 476 A1		11/1998		EP				N/A
\	V	AM22	EP 0 977 351 A1		02/2000		EP				N/A
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APPLICANTS Sorrells et al.	
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DEE		AA55	4,488,1	19	12/19	84	Mars	hall		MEG	EIVE	
,	4	AB55	4,633,5		12/19	86	Suzu	ki et al.		1		
Š	B E	AC55	5,369,7		11/19	94	Kosu	gi et al.		- NUV-2	6 2003	
1 174	9	AD55	5,416,4		05/19	95	Joshi			oobaalaa	0	
	3	AE55	5,438,3		08/19	95	Gaste	ouniotis et al.	-	<u>repriironoda</u>	Center 2600	
CATET	100	AF55	6,611,5		08/20	003	Schie	er et al.		I —	·	
		AG55	6,647,2		11/20	003	Bultm	nan et al.				
		AH									-	
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FIFTH SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Page 1 of 3 APPLICATION NO. ATTY. DOCKET NO. 1744.0450002 09/525,185 INVENTORS Sorrells et al.

DATE CONSIDERED

FILING DATE **ART UNIT** 2634 March 14, 2000 U.S. PATENT DOCUMENTS EXAMINER CLASS SUB-CLASS FILING DATE DOCUMENT NUMBER NAME DATE INITIAL AA AB AC AD AE AF Sorrells et al. 11/2004 6,813,485 B2 **AG58** 04/1995 Rybicki et al. 5,410,270 **AH58** Razavi et al. AI58 6,509,777 B2 01/2003 FOREIGN PATENT DOCUMENTS EXAMINER . CLASS TRANSLATION SUB-CLASS DATE COUNTRY DOCUMENT NUMBER YAS AJ No Yes ΑK No Yes AL No Yes AM No OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.) AN AO AP AQ AR

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FORM PTO-1449 FIFTH SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Page 2 of 3 ATTY, DOCKET NO. 1744.0450002 INVENTORS Sorrelis et al. FILING DATE APPLICATION NO. 09/525,185 ART UNIT

			[N	March 14, 2000	2634		
			U.S. PATE	NT DOCUMENTS			
XAMINER NITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
CO	AA59	5,982,329	11/1999	Pittman et el.		_	
·ce	AB59	6,208,636 B1	03/2001	Tawil et al.	-		
1	AC59	3,614,630	10/1971	Rorden			
	AD59	6,836,650 B2	12/2004	Sorrells et al.			
	AE59	5,844,868	12/1998	Takahashi et al.			
	AF59	6,385,439 B1	05/2002	Hellberg			
	AG59	6,741,139 B2	05/2004	Pleasant et al.			
4	AH59	6,823,178 B2	11/2004	Pleasant et al.			
Co	AI59	6,850,742 B2	02/2005	Fayyaz			
<u> </u>		F	OREIGN PA	TENT DOCUMENTS		·	<u> </u>
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Title of Invention

Spread Byectrum Applications of Universal Frequency Translation

Application Number:

09/525185

Confirmation Number:

8068

First Named Applicant:

David SORRELLS

Attorney Docket Number: 1744.0450002

Art Unit:

2634

Examiner:

Curtis B. Odom

Search string:

(5682099 or 6094084 or 6067329 or 6516185 or 6687493 or 6694128 or 6704549 or 6704558 or 5490176 or 5970053 or 6078630 or 6600911 or 5179731 or 5589793 or 4510467 or 4772853 or 4972436 or 5012245 or 5422909 or 5440311 or 5926513 or 5995030 or 6047026 or 6049573 or 6076015 or 6144331 or 6018553 or 6317589 or 5058107 or 5757858 or 6531979 or 6018262 or 4761798 or 6151354 or 6169733 or 6363262 or 6697603 or 5282222 or 5949827 or 6014176 or 5678226 or 5760632 or 6160280 or 5481570 or 5745846 or 4132952 or 5260973 or 6307894 or 6091289 or 6437639 or

20020037706).pn.

US Patent Documents

Note: Applicant is not required to submit a paper copy of cited US Patent Documents

init	Cite.No.	Patent No.	Date	Patentee	Kind	Class	Subclass
	1	5682099	1997-10-28	Thompson et al.		\	. /
	2	6094084	2000-07-25	Abou-Allam et al.		\	/ 1
	3.	6067329	2000-05-23	Kato et al.			/
	4	6516185	2003-02-04	MacNally	B1	\	/
	5	6687493	2004-02-03	Sorrells et al.	B1	`	\
	6	6694128	2004-02-17	Sorrells et al.	B1		\vee
	7	6704549	2004-03-09	Sorrells et al.	B1	•	\wedge
	8	6704558	2004-03-09	Sorrells et al.	B1		/ \
	9	5490176	1996-02-06	Pellier			/ \
	10	5970053	1999-10-19	Schick et al.		1	′ \
	11	6078630	2000-06-20	Prasanna		/	\
	12	6600911	2003-07-29	Morishige et al.	B1	- 1	\
	13	5179731	1993-01-12	Trankle et al.			\
					l		. /1

	•	· • .			
	14	5589793	1996-12-31	Kassapian	1 /
	15	4510467	1985-04-09	Chang et al.	j \ /
	16	4772853	1988-09-20	Hart	i \ /
而	17	4972436	1990-11-20	Halim et al.	j \
M	18	5012245	1991-04-30	Scott et al.	j \ /
	19	5422909	1995-06-06	Love et al.	i \
	20	5440311	1995-08-08	Gallagher et al.	
$\neg \neg$	21	5926513	1999-07-20	Suominen et al.	. \ ,
T	22	5995030	1999-11-30	Cabler	j · \
T	23	6047026	2000-04-04	Chao et al.	
$\overline{1}$	24	6049573	2000-04-11	Song	
	25	6076015	2000-06-13	Hartley et al.	1 \ /
$\overline{\mathcal{I}}$	26	6144331	2000-11-07	Jiang	
$\int \!\! \int$	27	6018553	2000-01-25	Sanielevici et al.	
\Box	28	6317589	2001-11-13	Nash	B1 ·
\prod	29	5058107	1991-10-15	Stone et al.	
\prod	30	5757858	1998-05-26	Black et al.	
	31	6531979	2003-03-11	Hynes	
	32	6018262	2000-01-25	Noro et al.	
	33	4761798	1988-08-02	Griswold, Jr. et al.	· \/
	34	6151354	2000-11-21	Abbey	J
	35	6169733	2001-01-02	Lee	<u> </u>
	36	6363262	2002-03-26	McNicol	B1
	37	6697603	2004-02-24	Lovinggood et al.	B1
	38	5282222	1994-01-25	Fattouche et al.	
	39	5949827	1999-09-07	DeLuca et al.	
	40	6014176	2000-01-11	Nayebi et al.	
	41	5678226	1997-10-14	Li et al.	
	42	5760632	1998-06-02	Kawakami et al.	
	43	6160280	2000-12-12	Bonn et al.	
	44	5481570	1996-01-02	Winters	'\
	45	5745846	1998-04-28	Myer et al.	
	46	4132952	1979-01-02	Hongu et al.	
\Box	47	5260973	1993-11-09	Watanabe	
	48	6307894	2001-10-23	Eidson et al.	B2
	49	6091289	2000-07-18	Song et al.	
4	50	6437639	2002-08-20	Nguyen et al.	B1 /

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US Published Applications

Note: Applicant is not required to submit a paper copy of cited US Published Applications

init	Cite.No.	Pub. No.	Date	Applicant	Kind	Class	Subclass
₽	1	20020037706	2002-03-28	Ichihara	A1	-	

Remarks

Note: Remarks are not for responding to an office action.

Patent Cite nos. 1 and 2 were cited in an Office Action in related U.S. Patent Application No. 10/317,181, filed December 12, 2002, entitled "Differential Frequency Down-Conversion Using Techniques of Universal Frequency Translation Technology," directed to related subject matter. Patent Cite nos. 3, 4, 44, and 45 were cited in an Office Action in related U.S. Patent Application No. 10/317,165, filed December 12, 2002, entitled "Method and Apparatus for Reducing DC Offsets in Communication Systems Using Universal Frequency Translation Technology," directed to related subject matter. Patent Cite nos. 5-8 are co-owned patents which are directed to related subject matter. Patent Cite nos. 5-8 and 33 were cited in a Notice of Allowance in related U.S. Patent Application No. 09/838,387, filed April 20, 2001, entitled "Method and System for Down-Converting and Up-Converting an Electromagnetic Signal, and Transforms for Same," directed to related subject matter. Also cited in said Notice of Allowance were U.S. Patent Nos. 5,937,013, 6,061,551, and 6,647,250, which have already been cited in the present application. Patent Cite nos. 6, 7, 47 and 48 were cited in a Notice of Allowance in related U.S. Patent Application No. 09/525,615, filed March 14, 2000, entitled "Method, System and Apparatus for Balanced Frequency Up-Conversion of a Baseband Signal and 4-Phase Receiver and Transceiver," directed to related subject matter. Also cited in said Notice of Allowance were U.S. Patent Nos. 6,091,940 and 6,370,371, which have already been cited in the present application. Patent Cite nos. 9-12 were cited in an Office Action in related U.S. Patent Application No. 09/567,978, filed May 10, 2000, entitled "Carrier and Clock Recovery Using Universal Frequency Translation," directed to related subject matter. Also cited in said Office Action was U.S. Patent No. 5,937,013, which has already been cited in the present application. Patent Cite nos. 13 and 14 were cited in a Notice of Allowance in related U.S. Patent Application No. 10/330,219, filed December 30, 2002, entitled "Methods and Systems for Down-Converting Electromagnetic Signals, and Applications Thereof," directed to related subject matter. Patent Cite nos. 15-26 were cited in an Office Action in related U.S. Patent Application No. 09/566,188, filed May 5, 2000, entitled "Integrated Frequency Translation and Selectivity with Gain Control Functionality, and Applications Thereof," directed to related subject matter. Patent Cite nos. 27 and 28 were cited in an Office Action in related U.S. Patent Application No. 09/632,856, filed August 4, 2000, entitled "Wireless Local Area Network (WLAN) Using Universal Frequency Translation Technology Including Multi-Phase Embodiments and Circuit Implementation," directed to related subject matter. Patent Cite nos. 29-31 were cited in an Office Action in related U.S. Patent Application No. 09/569,044, filed May 10, 2000, entitled "Universal Platform Module and Methods and Apparatuses Relating Thereto Enabled by Universal Frequency Translation Technology," directed to related subject matter. Also cited in said Office Action were U.S.

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Patent Nos. 2,057,613; 2,241,078; 2,283,575; 2,358,152; 2,410,350; 2,451,430; 2,472,798; 4,653,117; and 5,241,561, which have already been cited in the present application. Patent Cite no. 32 was cited in an Office Action in related U.S. Patent Application No. 10/289,377, filed November 7, 2002, entitled "Method and Apparatus for Reducing DC Offsets in a Communication System," directed to related subject matter. Also cited in said Office Action were U.S. Patent Nos. 5,471,665; 5,793,817; and 5,898,912, which have already been cited in the present application. Patent Cite nos. 34-37 were cited in an Office Action in related U.S. Patent Application No. 09/569,045, filed May 10, 2000, entitled "Methods and Apparatuses Relating to a Universal Platform Module and Enabled by Universal Frequency Translation Technology," directed to related subject matter. Also cited in said Office Action were U.S. Patent Nos. 5,339,459 and 5,557,641, which have already been cited in the present application. Patent Cite nos. 38-40 were cited in an Office Action in related U.S. Patent Application No. 09/590,955, filed June 9, 2000, entitled "Phase-Shifting Applications of Universal Frequency Translation," directed to related subject matter. Also cited in said Office Action was U.S. Patent No. 5,339,459, which has already been cited in the present application. Patent Cite nos. 41-43 were cited in an Office Action in related U.S. Patent Application No. 09/550,642, filed April 14, 2000, entitled "Method and System for Down converting an Electromagnetic Signal, and Transforms for Same," directed to related subject matter. Patent Cite no. 46 was cited in an Office Action in related U.S. Patent Application No. 09/476,093, filed January 3, 2000, entitled "Communication System Method with Multi-Mode and Multi-Band Functionality and Embodiments Thereof, Such as the Family Radio Service," directed to related subject matter. Also cited in said Office Action were U.S. Patent Nos. 5,937,013 and 5,790,587, which have already been cited in the present application. Patent Cite nos. 49 and 50, and Published Application cite no. 1 were cited in a Written Opinion in related PCT Application No. PCT/US03/16403, filed May 27, 2003, entitled "Method and Apparatus for DC Offset Removal in a Radio Frequency Communication Channel," directed to related subject matter.

Signature

Examiner Name	Date
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